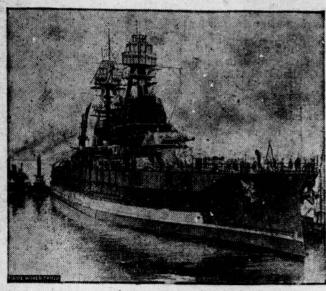
## U. S. S. Pennsylvania Is Modernized



The battleship Pennsylvania has been completely modernized at the Philadelphia navy yard. As the photograph shows, the old cage masts have been supplanted by massive tripod masts. The turret guns have been elevated, heavier armor put on, new fire control installed and many other changes

# Ruins Tell of Viking Empire

esting fact disclosed by the recent

aerial survey was that the houses were built around a rectangle or

square, a type of building heretofore identified with the Middle Ages.

This work is supplemented with

equally important work on the conti-nent to the south and southeast. Prof.

Birger Nerman, Swedish archeologist,

has concentrated on Grobin in Latvia.

He has identified Grobin as the See-

burg of legend, where King Olaf came

in the middle of the Ninth century, plundering first Seeburg and later Apulia, now identified with the sec-

Hedeby, an old Viking center near

Schleswig, is about to be made the subject of special study and will there-

with become the first Viking town to

be excavated on a comprehensive

The connections between Hedeby

and Birka, a Viking town once flour-

ishing on the island of Bjorko-the

picturesque and idyllic Swedish "is-land of birches"—are being stressed

to the relation between the two. Either

Hedeby was a transit port, established

for the trade of Birka, or, according

to one speculation, Birka was a far

Pittsburgh.—Judge George V. Moore has set up a miniature

criminal court here, calling it a

"plea room," where he presides

at a small desk with an assist-

ant district attorney to receive

Inspired by Golf!

northern outpost of Danish trade.

Holds Pygmy Court;

various theories are offered as

tion called Apuole.

### Explorations in Present Baltic States Reveal Interesting Historic Facts.

Stockholm,-Archeological research in the Baltic states continues to add supporting evidence to the theory that a powerful "Viking empire" was in process of forming in these regions more than a thousand years ago. It grows increasingly apparent that the hole Baltic littoral was more closely knit together by trade and communication than indicated by history as written in the past.

Important facts are also being supplied regarding the period of the great migrations and the southward wan derings of the Goths in the Fifth and Sixth centuries. In all the excavations specialists are stressing the need for 20-operation. This idea was emphasized at Riga, at the Baltic archeological congress, near the close of the summer, the first congress of the kind to assemble since 1912. And the idea will dominate in all accomplishment before the next congress, which is to be held in Kiel in 1934.

### Tells of Burled Treasure.

In Sweden the two seemingly inexhaustible reserves of soil awaiting the spade and the measuring rod are the islands of Gothland, nearly midway in the Baltic sen, and Oland, just off the Swedish mainland on the southeast coast. Not that the horizontal area is so wide reaching. But on the island of Gothland, for instance, the excavation of the foundation of some ancient house or fort or cathedral may reveal traces of an earlier foundation peneuth it and one still earlier beneath the second. Such is the case, as disclosed by this summer's work on the southern tip of the Island, where Dr. John Nihlen, with a corps of workers, egend attributed to Stavar the Great. a heroic figure dating approximately from the Second century of our era

Rumors of buried treasure are being substantiated on a small scale as the foundations of the huge hall, sixty meters in length, are investigated There are remains of glassware from the Roman empire, ceramics with classical ornamentation, and numerous sil ver coins identified by their images of Traianus, Hadrianus, Marcus Aurelius Crispina, or other Roman rulers of consorts. Arabian coins bear a later date and suggest that the enormous house may have been desolate and deserted during a part of the age of migrations, 400-700, to be utilized again by the Vikings and their associates. These finds therefore seem to substantiate certain hypotheses about other interesting sections of the is-

The Swedish island of Oland, with its sixteen known sites of ancient for tifications, has recently been surveyed for archeological purposes from the air by Dr. Marten Steuberger on this his seventh year of intensive study of the region, somewhat barren but also picturesque with its steppeslike vegetation. Here again there are traces of devastation and some forceful evacua tion of populations in the same peri od-the centuries before and after 500 A. D.

Views Taken From Air.

The largest fortification, Graborgen, was probably constructed at this time.
Abother, ismanstorp, enclosed no less than eighty-eight houses. An inter-

### \*\*\*\*\*\*\*\*\* Lost Dog Answers

Mrs. Audibert thought she saw the dog near Bayo St. John. Adibert took a hunting horn to which the dog. Ben. has answered, and went horning. He commandeered a skiff, started blowing the horn as he rowed session of two boys on an is-

Redding, Calif.-Buried beneath 12 feet of lava, a good part of a human skeleton was uncovered by a high-way construction crew four miles east

called the Beach, and 20 feet from the

teeth are intact, the cheek bones The receding forehead indicates it was that of a prehistoric man, one who perished in the geo-logical past when Mount Lassen was sending its great lava flow to the northwest.

It was presumed the man was running to get out of the way of the oncoming wave of lava. He lost in the race by only 20 feet, to be given burial that was not to be disturbed

Other human bones were found about the skull, but not so well preserved. The front teeth are all in place, but they are peculiar in being set edgewise instead of presenting a flat front as in modern man.

The skull is kept in the highway

headquarters camp at McArthur by Frank Russell, chief engineer. He may send it to the state university

## He Waited 46 Years

Episcopal church here, and a candi-date for congress and a delegate to the old adage "everything comes to him who waits" is true.

1884, '85 and '86 and while there played third base on the varsity ball team. According to the record he was a good ball player, for today he received a communication from the college notifying him he had been awarded the varsity letter for his performances on the team during those

## Rocket Hurts Three

Vienna .- A large rocket designed by an American physicist to reach the moon exploded atop Mt. Redorta, near Milan, Italy, resulting in serious innanic and slight hurts to two others. The rocket was de-

Blast of Horn

New Orleans.—A rabbit dog
belonging to Frank Audibert
and Paul Geory was lost for
three months but returned bethree menths but returned be-

and finally found the dog in pos-

## Skeleton of Ancient

Man Is Found in Lava

of McArthur. The find was made on a plateau edge of the wave of lava.

The skull is well preserved. The

for hundreds of years.

examination.

## to Get Varsity Letter

Lynn, Mass.-Rev. Charles Littlefield, former pastor of First Methodist National Republican convention which nominated Calvin Coolidge for President, recently was convinced that

Mr. Littlefield attended Wesleyan university at Middletown, Conn., in

## Explosion of Moon

pleas of guilty.

He borrowed the principle signed by Dr. Darwin Lyon, who was said to have been in Milan when the rocket exploded.

### New Thing in Medical Treatment



Endonasal reflex therapy, the latest contribution to medical science, the discovery of two eminent South American doctors, is now being demonstrated in New York city by Dr. Salvatore Caridi and Dr. Emanuel A. Manginelli. The treatment is administered by the stimulating of the nerve centers through the channels of the nose without the use of any medicines.



By ELMO SCOTT WATSON

YOU want to get in the ews pictures, be a twin! Many schools have won temporary fame because a picture has gone out bear-ing this familiar caption " — Sets of Twins in One School Puzzle Teachers" and the number which is inserted in that blank space varies from five to

seventeen. A few years ago Stephens college at Columbia, Mo., already famous as "the Vassar of the West," won even more renown from the fact that it had in its enrollment no less than 18 pairs of twins, and that they had formed a unique organization, named the "Du-plex club."

In St. Louis a year or so ago the press agent for a pair of "Siamese twins" who were appearing at a local theater had the happy inspiration to give a "twin party" to which all twins were invited. Sixty-five pairs, ranging in age from two months to forty-five years, were on hand with the result of an interesting group photo-graph—and much bood publicity for the "Siamese twins." In New York city twin daughters of a lawyer attended the Fordham law school to were graduated together. passed the state examinations together, were admitted to the bar together and the news photographers rushed to picture them together! Among the most publicized candidates for admission to West Point in recent years were the seventeen-year-old twin of a Pennsylvania soldier, killed near Chateau Thierry during the World war. When President Hoover nomi nated them for admission to the Unit ed States Military academy, news sto ies (and a news picture, of course) recorded the fact that "their appoint ment is believed to be the first design nation of twins ever so made.'

But are twins such a rarity after you can interpret as you wish, It says that of every 1,000 bables born there are ten pairs of twins. That's 2 per cent. If you want to base your calculations on some of the much-pub licized "twins in schools," you will find the percentage somewhat higher. A California school a year or so ago broadcast the fact that it had nine sets of twins in an enrollment of 300 -that's 6 per cent. Similarly Logan. Iowa, reported 12 pairs of twins in an enrollment of 275-a little over 8 per cent.

But whether you consider these figures as evidence that twins are or are not such rarities, the fact remains that the study of twins has challenged the attention of scientists for many years, and some definite results to explain them have been accomplished, although the scientists are not entirely in accord in all conclusions. Two kinds of twins are generally recognized-the "fraternal" and the "iden tical."

"Fraternal" twins are children born at almost the same time, but the product of two life cells. They may be the same or opposite sexes, and frequently bear no more resemblance to one another than any brother and sister. They are simply a biological But in the case of "identical" twins

it is a far different matter; for they duced by the splitting of a single life cell. They are invariably of the same sex and, furthermore, rese ble each other amazingly, not only facially. In coloring and other physical details, but in mental processes emotional reactions and in other sub ways. They are literally two halves of a single personality.



1. To this Council Bluffs, Iowa, family goes the distinction of being Amer-ica's "F. F. T." (Finest Family of Twins). They are Mr. and Mrs. An drew Kroger and their ten children-five sets of twins. The twins are Clyde and Claude, born in 1912; Addie and Abbie, born in 1914; Floyd and Lloyd, born in 1919; Jean and Jean-nette, born in 1923; and the babies. Donald Dean and Norma Jean, borr

2. Leo and Theo Bogant of Corvallis Ore., have a double (no pun intended!) distinction. Not only are they twins but they are leap-year twins, having been born February 29, 1916. Al though they are fifteen years old, they have been able to celebrate their birthday only three times! They are shown above holding the cup which they wor at a recent "Twins' Round-Up." held at Albany, Ore., in which 208 sets of twins took part.

Instances of remarkable resem blances between twins usually refer to the "Identical" type, although it is gen erally conceded that there was no safe criterion for distinguishing between the "identical" and the "fraternal" until a Japanese scientist, Taku Komal of the Imperial university at Kyoto, Japan, anounced his discovery of method. Of it he says:

"In the course of study on my collection of fingerprints and hand and sole prints of some twins, I have come to realize that, generally speaking, the same hands or feet of the identical ly in their patterns than the two hands or feet of the same individual.

"This statement holds good in principle also for several identical twins studied by others; while such a con-dition can never be found in twins of different sexes nor in twins of the same sex bearing evidence for their being fraternal twins. Thus, we seem to be justified by saying: 'Such twins are identical twins in which the same hands or feet of different individuals are more alike than the different hands or feet of the same individual."

"But this statement must not be taken as involving the notion also that, If the former resemblance is less than the latter resemblance, the given twins are fraternal, since there are some twins which are apparently identical and yet do not show the condition mentioned above. Anyway, this will probably serve as a criterion for iden tifying some identical twins.

"Some writers on twins and twin ning seem to hold the view that the identical twins are comparable with

the right and left halves of the body of one person. The view could not be quite correct, should it imply that the resemblance between the identica twins is in principle equal to the resemblance between the right and left halves of one person. As a matter of fact, speaking generally, the resem blance between the identical twins is more than that between the halves of one person. Aside from the fact that the viscera shows a marked asymmetry even among identical twins there are several cases known where such twins have the same defect or abnormality on the same side of the body. Moreover, as mentioned above, different twins show closer resem blance than the two hands or feet of the same individual."

But how does science account for twi s, anyway? No one has ventured a positive answer, but it is generally sed that the proces place to produce twins is as follows: The ovum, a single cell, is fertilized.

and thereupon begins to divide-ni

ways by twos-into many cells. Grad ually these are differentiated into three types and form themselves into lavers in the form of a sphere, the middle of which is hollow, called the blastosphere. Up to this point the process is normal. For some reason not known, however, the blastosphere next begins to split. It is thought that this is possibly due to the fact that the cells on the inner layer expand much more rapidly than those on the outer and, naturally, the outer layer bursts, as does a football bladder when it is blown up too tightly. When the split is complete the sides of the two split portions are joined together and we have two distinct blastopheres, which proceed to form identical individuals.

Since the division is always by two and it is the opinion of Dean Horatio H. Newman of the University of Chicago, author of "The Physiology of Twin ning" and "The Biology of Twins," which are regarded as standard reference works on the subject, that it is thus obvious that triplets can never be identical. Two of the children may be duplicates and the third merely fraternal type, the result of the fertilization of a second ovum. It is possible, however, for quadruplets to be two sets of identical twins. Doctor Newman holds. In such instances the two blastospheres, that resulted from the orignal split, in their turn divided.

The famous German case of the woman who gave birth to eight children at one time, is also recalled. In this instance the four blastospheres again divided to form eight.



### STRONG WINGS

"I'm sorry," said young Edgar Eagle, "to be late at the party, but I'm glad I can stay later."

He enjoyed the party immensely-it was being given for a young eagle of

was being great two years of age.

His mother had a fine white head and tall, and the young eagle was looking forward to the day when he would be bald-or rather that is what

A bald eagle is not really bald, and when that word is used it means that the eagle has white feathers on his

tail and white feathers on his head in one more year—when he would be three years of age.

But now the party was over and young Edgar Eagle was talking to the

"What a fine white head and tall you have," said the two-year-old eagle to Edgar Eagle. "Yes," said young Edgar Eagle, "I

am three years old. But we must be friends, and we will be friends." "Good," said the young eagle. He was very proud to have a friend a

whole year older than himself. "Do you know," said young Edgar "that we are very much hon-

"Lots, and lots, and lots of people who call themselves 'Americans'



taken our family for their emble "What's an emblem?" asked the two-year-old eagle.

"It means," said young Edgar Eagle, that they wish to be like us.

"They want to be free and brave and independent. And it's very fine to have lots and lots of people say they want to copy you, isn't it?"

"Yes," said the two-year-old eagle. He was very much impressed and was feeling very solemn through young Edgar Eagle's talk.

"So I'm going to teach you how to make your wings very, very strong —so you'll be free and independent—

and so no one can be finer than you. "Then, when it's your third birthday and your bald head is covered with white feathers-then, ah, then, you'll be glad and proud that you are an

eagle. "You know, too, that our pictures are all over the world, and as they call us such fine names we surely,

surely, must live up to them." "Yes, indeed," said the two-year-old eagle. "but can't we have an extra piece of left-over birthday cake first. before we start off on our lessons in how to be so very strong?"

"We'll have the birthday cake right away and eat it as we go," said Edgar Eagle.

So off went young Edgar Eagle and the two-year-old eagle, and they had

many flying adventures. Edgar taught him splendid lessons about flying and it certainly was fine

for the young eagle to have such a superior and wise eagle teacher. and he was a whole year older and was really a full-grown eagle.

### RIDDLES

These teasers will be good ones to remember and ask your friends, but don't forget the answers yourself.

1. Why is a mirror like a very un-2. What words may be made quicker

and shorter by adding another syllable 3. What relation is a child to its

own father when it is not its own father's son? 4. Why is an unbound book like a

rson in bed? 5. Why is a pulled tooth like a thing that is forgotten?

Answers.

1. Because even though you load his back with silver, he will always reflect on you. 2. The words quick and short. 3. A daughter. 4. Because it is in sheets. 5. Both are out of the head,